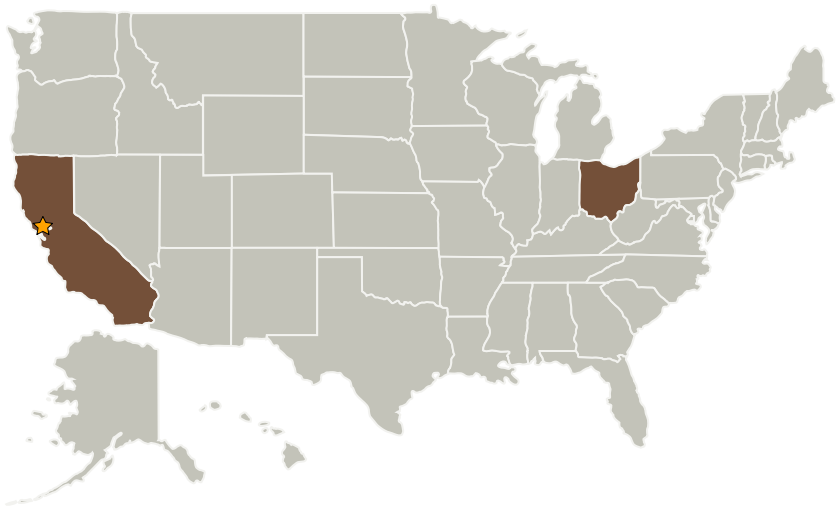
Airport Surface Management Tools for NAS Users, Phase I

Completed Technology Project (2004 - 2004)

Project Introduction

Decision support tools that make use of surface surveillance technologies data can potentially make it possible to increase airport throughput, better accommodate NAS user needs and improve safety. Currently, the major emphasis of tools like NASA?s Surface Management System and the FAA?s Departure Spacing Program has been on improving the performance of the FAA. However, to fully achieve the potential benefits, corresponding tools must be made available to NAS users. To this end, we propose to develop a sophisticated suite of tools for the NAS users that make integrated use of data about airport surface and airspace operations, and that will allow them to work more effectively in coordination with FAA staff. Two classes of tools will be explored under this SBIR. The first class will consist of programmable alerts and critiquing functions that monitor for important events. The second will focus on the design of advanced algorithms that assist with departure planning and execution. Phase I will result in the development of a prototype system that demonstrates the capabilities of these tools, along with appropriate formative evaluations. Phase II would result in the completion of an operational suite of tools.

Primary U.S. Work Locations and Key Partners



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Cognitive Systems Engineering, Inc.	Supporting Organization	Industry	Ostrander, Ohio

Primary U.S. Work Locations	
California	Ohio

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Amy L Spencer

Technology Areas

Primary:

- TX16 Air Traffic Management and Range Tracking Systems
  - TX16.3 Traffic Management Concepts